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PATENT APPLICATION

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IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Bo SHEN

Confirmation No.: 1999

Application No.: 09/825,495

Examiner: El Chanti, H.

Filing Date: 04/02/2001

Group Art Unit: 2157

Title: SYSTEM AND METHOD FOR DYNAMIC ROUTING TO SERVICE PROVIDERS

Mail Stop Appeal Brief-Patents
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PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 06/16/2006.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month
\$120

☐ 2nd Month
\$450

☐ 3rd Month
\$1020

☐ 4th Month
\$1590

☐ The extension fee has already been filed in this application.

☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$ 500 . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant: Bo Shen

Patent Application

Serial No.: 09/825,495

Group Art Unit: 2157

Filed: 04/02/2001

Examiner: El Chanti, H.

For: System And Method For Dynamic Routing To Service Providers

Appeal Brief

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10006086-1

Serial No.: 09/825,495
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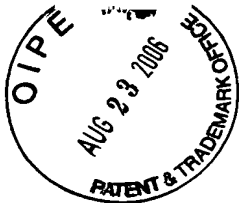


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Real Party in Interest

The assignee of the present invention is Hewlett-Packard Company.

Related Appeals and Interferences

There are no related appeals or interferences known to the Appellant.

Status of Claims

Claims 1-25 stand rejected. Rejections of claims 1-25 are herein appealed.

Status of Amendments

All proposed amendments have been entered. An amendment subsequent to the Final Action has not been filed.

Summary of Claimed Subject Matter

A method and apparatus for intelligently routing client requests to service provider servers associated with a service routing network, which may include an association of multiple service provider servers is disclosed. The method is implemented within a disk-based data storage system. As shown in Figure 2 and described in the Specification on page 10 lines 20-30, a first difference (dto) between a wobble reference signal and previously recorded data is measured. Test data is written on a test track to measure a second difference (dtn) between the wobble reference signal and the test data. The test data is written synchronously with a write clock. An offset value (dtw) is determined by comparing the first difference and the second difference. New data is then written using the write clock and the offset value such that the new data is synchronized with the old data.

In accordance with Independent Claims 1, 12 and 22, one embodiment provides a method wherein a computing device utilizes an Internet service provider (ISP), 603 of Figure 6 and page 13-14 of the Specification, to communicate over the network, 640 of Figure 6 and page 13-14 of the Specification.

As shown in Figure 1 and pages 4-5 of the Specification, an association of at least two application service provider servers (120-124) coupled with the network (100), the association comprising: a first application service provider (120) for providing a first type of application service; and a second application service provider (122) for providing a second type of application service, wherein the first type of application service is different than the second type of application

service as described in 508-514 of Figure 5 and page 13 of the Specification. Also in Figure 1 and page 3 lines 20-25, an ingress server (104) is configured to receive a request for an application service (206 of Figure 2 and page 6 lines 3-15 of the Specification) from the computing device (102 of Figure 1) over an established network connection.

Referring to 210 of Figure 2 and to page 6 lines 16-25, the service routing server (104 of Figure 1) utilizing a predetermined application criteria to intelligently select one of the at least two application service provider servers (120-124) based on the application request received from the computing device (206 of Figure 2) and intelligently routing the computing device application service request over the network (100) to the selected application service provider server (120-124) to perform the requested application service.

At page 9 lines 1-35 of the Specification, an application service provider server register (408-412 of Figure 4) configured to maintain current application service provider server information (416 of Figure 4 and page 10 line 30-page 11 line 25) for at least one of the at least two application service provider servers providing the application services.

Grounds of Rejection to be Reviewed on Appeal

1. Claims 1-25 stand rejected under 35 U.S.C. §102 (e) as being anticipated by Duursma et al. U.S. Patent No. 6,643,690.

Arguments

1. Whether Claims 1-25 are anticipated under 35 U.S.C. §102 (e) by Duursma et al. U.S. Patent No. 6,643,690.

A. Scope and Content of the Cited Prior Art Reference (Duursma et al.)

Duursma et al. teaches an apparatus and method for determining a program neighborhood of a client node in a client-server network.

B. Differences Between Duursma et al. and the claimed Invention

The cited prior art reference, Duursma et al. reference describes a program neighborhood of the client node including application programs hosted by application servers on the network. The present invention enables a user of a client node to learn of these application programs. The user is not required to know where to find such applications or to manually establish links to such applications. To make the client node aware of its program neighborhood, a host server collects application-related information corresponding to application programs hosted by the servers in the network. The application-related information can include the application name, the server location of the application, minimum capabilities required of client nodes for executing the application, and those users who are authorized to use that application. User credentials are received from the client system. The user credentials are used to filter the application-related information. Information representing those application programs that are available to the client node is transmitted from the host server to the client system for display. In a Windows-based client node, the

information can be represented by a graphical icon for each available application program. (Duursma Abstract)

Appellant respectfully submit that Claim 1 includes "A network configured to dynamically and intelligently route requests for services provided by service provider servers, comprising:

- a computing device utilizing an Internet service provider (ISP) to communicate over the network;

- an association of at least two application service provider servers coupled with said network, said association comprising:

- a first application service provider for providing a first type of application service; and

- a second application service provider for providing a second type of application service, wherein said first type of application service is different than said second type of application service;

- an ingress server configured to receive a request for an application service from the computing device over an established network connection;

- a service routing server utilizing a predetermined application criteria to intelligently select one of said at least two application service provider servers based on said application request received from said computing device, and intelligently routing the computing device application service request over the network to the selected application service provider server to perform the requested application service; and

- an application service provider server register configured to maintain current application service provider server information for at least one of said at least two application service provider servers providing said application services.

(Claim 22 recites similar features)

Appellant further submits that Claim 12 states "An ingress server configured to route a client request to an application server, comprising:

- a router configured with routing code to route client requests over an established network connection to an application service provider server, said service routing server utilizing a predetermined application criteria to intelligently select one of said at least two application service provider servers based on said application request received from said computing device, and intelligently routing the computing device application service request over the network to the selected application service provider server to perform the requested application service;

- a parameter reviewer for reviewing and qualifying the adequacy of an outside server's parameters to qualify the adequacy of the submitted parameters;

- an application service provider server register configured to maintain current application service provider server information, said register based on the qualifying of said outside server's parameters, said application service provider server register comprising:

- a first application service provider description including a first type of application service provided by said first application service provider;
 - and

- a second application service provider description including a second type of application service provided by said first application service provider, wherein said first type of application service is different than said second type of application service; and

- a monitoring thread for monitoring the outside application servers performance of the service and return of the results to the client.

In the final Office Action dated 1/30/2006, the Examiner has referenced col. 8 lines 34-Col. 9 lines 52 of Duursma et al. as containing subject matter that anticipates the aforementioned features of Claim 1 (Claims 12 and 22 contain similar features). However, Appellant understands the cited sections to specifically teach against the claimed features.

Appellant respectfully submits that anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim (Lindemann Maschinefabrik GmbH v. American Hoist & Derrick Co., 221 USPQ 481, 485 (Fed. Cir. 1984)). Appellant respectfully submits that Duursma fails to disclose each and every element of Claims 1, 12 and 22, arranged as in the claim.

Specifically, Appellant respectfully submits that the feature of a service routing server utilizing a predetermined application criteria to intelligently select one of the at least two application service provider servers based on the application request received from the computing device, and intelligently routing the computing device application service request over the network to the selected application service provider server to perform the requested application service. That is, once the computing device provides a request for an application service, the service routing server then intelligently routes the computing device application service request over the network to the selected application service provider server to perform the requested application service (emphasis added).

In contrast, Appellant understands Duursma et al. to teach at Column 7 lines 20-30 (and additionally lines 58-59, Column 8 lines 14-15, lines 28-29; Column 9 lines 40-45, etc) that the server can launch the PN application in response to a request 42 by the client node 10 for a particular application program. The request passes to the master server node, in this example server 30. The master server node 30, taking load-balancing and application availability into account, indicates (arrow 43) to the client node 10 that the sought-after application is available on server 32. The client node 10 and server 32 establish

a connection (arrows 45 and 46). By this connection, the server 32 can transfer the executable code of the particular application to the client node 10, when the client node 10 and server 32 are operating according to the client-based computing model. Alternatively, the server 32 can execute the particular application and transfer the graphical user interface to the client node 10, when the client node 10 and server 32 are operating according to the server-based computing model (emphasis added).

Thus, appellant respectfully submits that Duursma et al. does not anticipate the feature "a service routing server utilizing a predetermined application criteria to intelligently select one of the at least two application service provider servers based on the application request received from the computing device, and intelligently routing the computing device application service request over the network to the selected application service provider server to perform the requested application service" as claimed in Independent Claims 1 and 22.

Instead, Appellant understands Duursma et al. to teach the master server to direct the client to a connection with the server having the application desired by the client. This teaching is directly away from the claimed feature of the service routing server receiving the request from the client and then routing the service request to the server.

For this reason, Appellant respectfully states that Duursma et al. does not anticipate the features of simulation as claimed in Independent Claims 1, 12 and 22 and as such the rejection under 35 U.S.C. §102(e) is improper should be

reversed as an essential element needed for a proper prima facie rejection is missing.

Furthermore, Claim 1 (Claims 12 and 22 contains similar features) includes the feature “utilizing a predetermined application criteria to intelligently select the application service provider.”

In the final Office Action, the Examiner has referenced col. 8 lines 34-Col. 9 lines 52 of Duursma et al. as containing subject matter that anticipates the aforementioned features of Claim 1 (Claim 22 contains similar features). However, Appellant respectfully states that Duursma does not teach or anticipate using predetermined application criteria to intelligently select the application service provider. Instead, Appellant understands Duursma to teach server selection based on real time load determination and present application availability, a distinct and dissimilar format, goal and objective (emphasis added).

Specifically, at Column 8 lines 58-65, Appellant understands Duursma et al. to teach the master node considers load balancing and application program availability to determine which server can handle the request. Additionally, at Column 5 lines 40-53, Appellant understands Duursma et al. to teach that the master server node can direct the client node to a particular server node on which to execute an application based on the list of available servers and corresponding load levels. Additionally, at Column 7 lines 20-30, Appellant understands Duursma et al. to teach the master server node taking load-balancing and application availability into account when indicating to the client node that the sought-after application is available on server (emphasis added).

Thus, Appellant again submits that the application servers of Duursma et al. do not teach or anticipate utilizing predetermined application criteria to intelligently select the application service provider. Instead, Appellant understands Duursma et al. to teach and anticipate real time load determination and present application availability to select the application server (emphasis added).

For this additional reason, Appellant respectfully states that Duursma et al. does not anticipate the features of simulation as claimed in Independent Claims 1, 12 and 22 and as such the rejection under 35 U.S.C. §102(e) is improper should be reversed as an essential element needed for a proper prima facie rejection is missing.

In addition, Claim 1 (Claims 12 and 22 contain similar features) includes the feature “developing a register for said application service provider, said register qualifying said application servers based on the parameters of the services provided by the application service providers.”

In the final Office Action, the Examiner has referenced col. 8 lines 34-Col. 9 lines 52 of Duursma et al. as containing subject matter that anticipates the aforementioned features of Claim 1 (Claims 12 and 22 contains similar features).

In the current Office Action, the Examiner makes reference to Duursma et al. in supporting the grounds of rejection. However, Appellant respectfully states that Duursma does not teach or anticipate developing a register for said

application service provider, said register qualifying said application servers based on the parameters of the services provided by the application service providers. Instead, Appellant understands Duursma to teach evaluating the client credentials and then authorizing the list of available services based on the client's authentication (emphasis added).

Specifically, at Column 6 lines 40-50, Appellant understands Duursma et al. to teach that from the user credentials and the application-related information, the server can also determine which application programs hosted by the application servers are available for use by the user of the client node. Additionally, at Column 8 lines 15-30, Appellant understands Duursma et al. to teach that the server requests the user credentials from the client node to authenticate access to the second application program. Upon a successful authentication, the client node and server establish the second connection and exchange information regarding the execution of the second application program.

Thus, Appellant again submits that the application servers of Duursma et al. do not teach or anticipate developing a register for said application service provider, said register qualifying said application servers based on the parameters of the services provided by the application service providers. Instead, Appellant understands Duursma et al. to teach and anticipate qualifying a user.

For this further reason, Appellant respectfully states that Duursma et al. does not anticipate the features of simulation as claimed in Independent Claims

1, 12 and 22 and as such the rejection under 35 U.S.C. §102(e) is improper should be reversed as an essential element needed for a proper prima facie rejection is missing.

For the plurality of reasons provided herein, Appellant respectfully submits that Duursma et al. does not anticipate the present claimed invention as recited in Claims 1, 12 and 22, and as such, Claims 1, 12 and 22 are in condition for allowance. Accordingly, Appellant also respectfully submits that Duursma et al. does not anticipate the present claimed invention as recited in Claims 2-11 which are dependent on an allowable Independent Claim 1, Claims 13-21 which are dependent on an allowable Independent Claim 12 and Claims 23-25 which are dependent on an allowable Independent Claim 22, and that Claims 2-11, 13-21 and 23-25 recite further features of the present claimed invention. Therefore, Appellant respectfully states that the rejection of Claims 2-11, 13-21 and 23-25 is also improper and should be reversed.

In summary, the Appellant respectfully requests that the Board reverse the Examiner's rejections of claims 1-25.

The Appellant wishes to encourage the Examiner or a member of the Board of Patent Appeals to telephone the Appellant's undersigned representative if it is felt that a telephone conference could expedite prosecution.

Respectfully submitted,

WAGNER, MURABITO & HAO LLP

Date: _____

8/18/06



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Claims Appendix

1. (previously presented) A network configured to dynamically and intelligently route requests for services provided by service provider servers, comprising:

a computing device utilizing an Internet service provider (ISP) to communicate over the network.

an association of at least two application service provider servers coupled with said network, said association comprising:

a first application service provider for providing a first type of application service; and

a second application service provider for providing a second type of application service, wherein said first type of application service is different than said second type of application service;

an ingress server configured to receive a request for an application service from the computing device over an established network connection;

service routing server utilizing a predetermined application criteria to intelligently select one of said at least two application service provider servers based on said application request received from said computing device, and intelligently routing the computing device application service request over the network to the selected application service provider server to perform the requested application service; and

an application service provider server register configured to maintain current application service provider server information for at least one of said at least two application service provider servers providing said application services.

2. (previously presented) A network according to Claim 1 further comprising a qualifying device configured to intelligently qualify an application service provider server according to predetermined criteria, wherein the application service provider server may become associated with the network.

3. (previously presented) A network according to Claim 2 wherein the qualifying device is configured to qualify an application service provider server based on application service quality criteria.

4. (previously presented) A network according to Claim 2 wherein the qualifying device is configured to qualify an application service provider server based on application service routing criteria, and wherein the service routing server includes routing code for enabling a processor to route client requests to an application service provider server by executing the routing code.

5. (previously presented) A network according to Claim 2 wherein the qualifying device is configured to qualify an application service provider server based on the type of service offered by the application service provider server.

6. (previously presented) A network according to Claim 1, wherein the network includes a plurality of service routing servers and a router table propagator configured to intelligently propagate updates of routing tables that may exist in each of the plurality of service routing servers.

7. (previously presented) A network according to Claim 1, wherein the ingress server includes a service routing server configured with routing code to route client requests to an application service provider server and an application service provider server register configured to maintain current service provider server information.

8. (previously presented) A network according to Claim 1 further comprising a plurality of application service provider servers that are affiliated with the ingress server, wherein the ingress server is configured to route client requests to one or more of the application service provider servers according to predetermined criteria.

9. (previously presented) A network according to Claim 1, wherein the application service provider server register includes a routing table containing property information pertaining to an application service provider server.

10. (previously presented) A network according to Claim 1, wherein the application service provider server register includes a routing table containing

property information pertaining to an application service provider server including operation status information and type of application service information.

11. (previously presented) A network according to Claim 9, wherein the routing table includes a look-up table containing property information pertaining to an application service provider server that can be looked up by the service routing server.

12. (previously presented) An ingress server configured to route a client request to an application server, comprising:

- a router configured with routing code to route client requests over an established network connection to an application service provider server, said service routing server utilizing a predetermined application criteria to intelligently select one of said at least two application service provider servers based on said application request received from said computing device, and intelligently routing the computing device application service request over the network to the selected application service provider server to perform the requested application service;

- a parameter reviewer for reviewing and qualifying the adequacy of an outside server's parameters to qualify the adequacy of the submitted parameters;

- an application service provider server register configured to maintain current application service provider server information, said register based on the qualifying of said outside server's parameters, said application service provider server register comprising:

- a first application service provider description including a first type of application service provided by said first application service provider;

- and

- a second application service provider description including a second type of application service provided by said first application service provider, wherein said first type of application service is different than said second type of application service; and

- a monitoring thread for monitoring the outside application servers performance of the service and return of the results to the client.

13. (previously presented) An ingress server according to Claim 12 further comprising a qualifying device configured to intelligently qualify an application service provider server according to predetermined criteria, wherein the application service provider may become associated with a service routing network.

14. (previously presented) An ingress server according to Claim 13 wherein the qualifying device is configured to qualify an application service provider server based on service quality criteria.

15. (previously presented) An ingress server according to Claim 13 wherein the routing device includes routing code for enabling a processor to route client requests to an application service provider server upon execution, and wherein the qualifying device is configured to qualify an application service provider server based on service routing criteria.

16. (previously presented) An ingress server according to Claim 13 wherein the qualifying device is configured to qualify an application service provider server based on the type of service offered by the application service provider server.

17. (Original) An ingress server according to Claim 12, wherein the network includes a plurality of routing devices and a router table propagator configured to intelligently propagate updates of routing tables that may exist in each of the plurality of routing devices.

18. (previously presented) An ingress server according to Claim 12, wherein the application service provider server register includes a routing table containing property information pertaining to an application service provider server.

19. (previously presented) An ingress server according to Claim 12, wherein the application service provider server register includes a routing table containing property information pertaining to a application service provider server including operation status information and type of application service information.

20. (previously presented) An ingress server according to Claim 12, wherein the routing table includes a look-up table containing property information pertaining to an application service provider server that can be looked up by the routing device.

21. (previously presented) An ingress server according to claim 12, further comprising a subscription module configured to route a client request to an application service provider server according to subscription criteria.

22. (previously presented) A method for routing a client request to a pre-qualified application service provider server, wherein such routing is performed by a routing server having an application service provider register, comprising:

- receiving a client request for an application service to be performed by an application service provider over an established network connection;

- analyzing the client request to determine the type of application service that is requested;

- developing a register for said application service provider, said register qualifying said application servers based on the parameters of the services provided by the application service providers, said register for said application service provider comprising:

- a first application service provider description including a first type of application service provided by said first application service provider;
 - and

- a second application service provider description including a second type of application service provided by said first application service provider, wherein said first type of application service is different than said second type of application service; and

- checking the application service provider register for a pre-qualified application service provider server that is capable of performing the requested application service;

- providing a graphical user interface for providing a choice to a user among a number of said application service providers that offer a service that is responsive to said client request; and

utilizing a service routing server to route the request to said application service provider, wherein said service routing server utilizes a predetermined application criteria to intelligently select one of said application service provider servers based on said application request received from said computing device, and intelligently routing the computing device application service request over the network to the selected application service provider server to perform the requested application service.

23. (previously presented) A method according to Claim 22, further comprising the step of choosing an application service provider server from a number of application service provider servers that have been requalified by the routing server for particular application services.

24. (previously presented) A method according to Claim 23, wherein choosing a service provider server from a number of application service provider servers is performed by the routing server according to predetermined subscription criteria.

25. (previously presented) A method according to Claim 22, further including intelligently propagating router table updates to application service routing servers.

Evidence Appendix

None

Related Proceedings Appendix

None